



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/891,235

06/27/2001

Takahiro Hosomi

053969-0128

1598

22428

7590

12/13/2005

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

NGUYEN, DUNG X

ART UNIT

PAPER NUMBER

2638

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

09/891,235

Applicant(s)

HOSOMI, TAKAHIRO

Examiner

Dung X. Nguyen

Art Unit

2638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 03, 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9 - 13, and 20 - 22 is/are rejected.
- 7) ☒ Claim(s) 3 - 8, 14 - 19, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed on September 29, 2005 have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made in view of the new found reference(s).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 2, 12, and 13 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Liew (US patent # 6,415,153 B1), and further in view of Kang et al. (US patent # 6,615,382 B1).

Regarding claim 1, Liew discloses a spectrum communication system comprising means for controlling transmission power of a counterpart equipment upon a communication quality (column 1, lines 9 – 31).

Liew differs from the instant claimed invention that it does not show the step of controlling a transmission bandwidth of a counterpart equipment depending upon a communication quality.

However, Kang et al. discloses (figure 8) the step of controlling a transmission bandwidth of a counterpart equipment depending upon a communication quality (column 15, lines 28 – 40, base station 34 deterioration is the same as change in quality).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Liew and Kang et al. as providing the requirements of the instant claimed invention for using more efficient of both transmission power and transmission bandwidth.

Regarding claim 2, as followed by the limitations analyzed in claim 1, Kang et al. further discloses wherein the communication quality is expressed by a reception bit error ratio (column 7, lines 26 – 29).

Regarding claim 12, the limitations are analyzed in the same manner set forth as claim 1.

Regarding claim 13, as followed by the limitations analyzed in claim 12, the limitations

4. **Claims 9 and 20 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Liew (US patent # 6,415,153 B1), Kang et al. (US patent # 6,615,382 B1), and further in view of Sun et al. (US patent # 6,510,147 B1).

Regarding claim 9, as followed by the limitations analyzed in claim 1, Liew and Kang et al. differ from the instant claimed invention that they do not show that wherein the control means varies the transmission bandwidth by varying a chip rate.

However, Sun et al. discloses that wherein the control means varies the transmission bandwidth by varying a chip rate (column 1, line 52 to column 2, line 26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Liew, Kang et al., and Sun et al. as providing the requirements of the instant claimed invention varying a chip rate for adapting transmitting narrow-band signals to transmitting wideband signals (column 1, lines 13 – 17 of Sun et al.).

Regarding claim 20, as followed by the limitations analyzed in claim 12, the limitations are analyzed in the same manner set forth as claim 9.

Art Unit: 2638

5. **Claims 10 and 21 are rejected** under 35 U.S.C. 103(a) as being unpatentable Liew (US patent # 6,415,153 B1), Kang et al. (US patent # 6,615,382 B2), and further in view of Lee et al. (US patent application # 2003/0086478 A1).

Regarding claim 10, as followed by the limitations analyzed in claim 1, Liew and Kang et al. differ from the instant claimed invention that they do not show that wherein the control means varies the transmission bandwidth by varying a data rate.

However, Lee et al. discloses that wherein the control means varies the transmission bandwidth by varying a data rate (page 2, first column, paragraph # 15 and page 3, second column 1, line 52 to column 2, lines 10 – 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Liew, Kang et al., and Lee et al. as providing the requirements of the instant claimed invention for improving user connectivity as data can be transmitted over existing band-limited links (page 1, paragraph 2 of Lee et al.)

Regarding claim 21, as followed by the limitations analyzed in claim 12, the limitations are analyzed in the same manner set forth as claim 10

6. **Claims 11 and 22 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Liew (US patent # 6,415,153 B1), Kang et al. (US patent # 6,615,382 B1), and further in view of Bishop et al. (US patent # 6,377,782 B1).

Regarding claim 11, as followed by the limitations analyzed in claim 1, Liew and Kang et al. differ from the instant claimed invention that they do not show that wherein the control means varies the transmission bandwidth by varying a bit number of an error correction code.

However, Bishop et al. discloses that wherein the control means varies the transmission bandwidth by varying a bit number of an error correction code (figure 7 and its description from column 15, line 13 to column 16, line 38 and column 17, lines 15 – 46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Liew, Kang et al., and Bishop et al. as providing the requirements of the instant claimed invention for improving the transmission and reception of data via a linear broadband network (column 1, lines 26 – 28 of Bishop et al.)

Regarding claim 22, as followed by the limitations analyzed in claim 12, the limitations are analyzed in the same manner set forth as claim 11.

Allowable Subject Matter

7. **Claims 3 – 8, 14 – 19, 23, and 24 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pope, Jr. et al. (US patent # 6,654,616 B1) discloses a wireless area network having flexible backhauls for creating network.

Ayyagari et al. (US patent # 6,947,407 B2) discloses a power control based admission methods for maximum throughput in DS-CDMA with multi-media traffic.

Nguyen et al. (US patent # 6,594,279 B1) discloses a method and its corresponding apparatus for transporting IP datagrams over synchronous optical networks at guarantied quality of service.

Art Unit: 2638

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (571) 272-3010. The examiner can normally be reached on Monday through Friday from 8:00 AM to 17:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Vanderpuye Kenneth N. can be reached on (571) 272-3078. The fax phone numbers for this group is (571) 273-3021.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

DXN

December 06, 2005


KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER